

Applic. No.: 09/994,195
Amdt. Dated September 30, 2004
Reply to Office action of July 2, 2004

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-13 and 16-19 remain in the application. Claims 1 and 8 have been amended. Claims 14-15 have been cancelled.

In the section entitled "Specification" on page 2 of the above-identified Office action, the amendment filed July 13, 2002 has been objected to under 35 USC 132 as introducing new matter into the disclosure. The amended paragraph of the specification has been reversed to the original disclosure and claims 14-15 have been cancelled.

In item 1 on page 3 of the above-mentioned Office action, claims 1, 4-5, and 7 have been rejected as being anticipated by O'Toole et al. (US Pat. No. 6,696,879 B1) under 35 U.S.C. § 102(e).

In item 2 on page 3 of the above-mentioned Office action, claims 8 and 10-17 have been rejected as being unpatentable over O'Toole et al. and further in view of Barham et al. (US Pat. No. 5,432,813) under 35 U.S.C. § 103(a).

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In item 3 on page 4 of the above-mentioned Office action, claims 2 and 9 have been rejected as being unpatentable over O'Toole et al. and Barham et al. and further in view of Anderson (US Pat. No. 4,868,915) under 35 U.S.C. § 103(a).

In item 4 on page 4 of the above-mentioned Office action, claim 3 has been rejected as being unpatentable over O'Toole et al. and further in view of MacLellan (US Pat. No. 5,940,006) under 35 U.S.C. § 103(a).

In item 5 on pages 4-5 of the above-mentioned Office action, claims 6 and 19 have been rejected as being unpatentable over O'Toole et al., MacLellan and Barham et al. and further in view of Lanzl (US Pat. No. 6,353,406) under 35 U.S.C. § 103(a).

In item 6 on page 5 of the above-mentioned Office action, claim 18 has been rejected as being unpatentable over O'Toole et al. and further in view of Tu et al. (US Pat. No. 5,682,403) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references. However, the language of claims 1 and 8 has been

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modified in an effort to even more clearly define the invention of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

receiving the access code signals with the transceiver unit substantially simultaneously, and separating the access code signals on a basis of specific spread spectrum sequences applied to the signals.

Claim 8 calls for, inter alia:

a receiver for receiving access code signals, said receiver having at least one section with a device for parallel processing and separating of a plurality of simultaneously received access code signals in accordance with specific spread spectrum sequences superimposed on the access code signals.

O'Toole et al. disclose an access control device for a motor vehicle (see column 98, lines 16-35). The device has a transponder 12, which is queried by a transceiver 26. When the transponder receives a request signal, it sends a response back to the vehicle.

O'Toole et al. do not have the object of the invention of the instant application to speed up the access control without a clear increase of technical expense and cost. In contrast, the method of O'Toole et al. lasts much longer. As described

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in the "Protocol" of O'Toole et al. (see column 90, line 16 and lines 30-34), when more than one transponder responds to the query at the same time, a transceiver receives garbled information. When replies from multiple transponders are received, a so-called "arbitration" procedure will be carried out. Such a procedure is described in detail, for example, in column 29, lines 32-52. The transceiver sends out a random number in order to check the transponders directly and individually. Only the directly corresponding transponder responds to the query, by which all response signals are received error-free. Thus, when there are multiple transponders responding at the same time, there would be extra time or expense. O'Toole et al. concern the perfect recognition and acquisition of all the nearby transponders. In contrast, the invention of the instant application concerns obtaining legitimate access to the motor vehicle, the process of which should be as quick as possible until the query-response-dialog ends, so that the driver does not have to wait for an unusual long time.

Although O'Toole et al. use spread spectrum sequences to send out signals from the transponder, those do not serve to avoid collision when multiple transponders respond and also do not serve to increase the security. In contrast, in the invention of the instant application the spread spectrum technique is

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deliberately used to filter out the access code, even when only one transponder responds, but especially when multiple transponders respond at the same time. Since the signals are spread, it is possible to find out the access code error-free even when multiple transponders respond at the same time. Certainly, it is difficult for a potential thief to intercept such spread signals and to derive the access code therefrom. Therefore, not only the query-response-dialog (challenge response) speeds up, but also the security from interception increases.

This targeted measure of the invention of the instant application is not known from O'Toole et al. because O'Toole et al., on the one hand, use an arbitration procedure (which lasts substantially longer) when multiple transponders respond at the same time, and on the other hand, a response signal of a transponder can be modulated with a pseudo noise sequence (PN) to transmit a direct spectrum sequence (see column 67, lines 17-42). In O'Toole et al., the spread spectrum technique is not used to speed up the procedure and to guarantee a higher security against interception.

Clearly, O'Toole et al. do not show "receiving the access code signals with the transceiver unit substantially simultaneously, and separating the access code signals on a

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basis of specific spread spectrum sequences applied to the signals," as recited in claim 1 and "a receiver for receiving access code signals, said receiver having at least one section with a device for parallel processing and separating of a plurality of simultaneously received access code signals in accordance with specific spread spectrum sequences superimposed on the access code signals," as recited in claim 8 of the instant application.

The other cited references do not make up for the deficiencies of O'Toole et al.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 and 8. Claims 1 and 8 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claims 1 or 8, they are believed to be patentable as well.

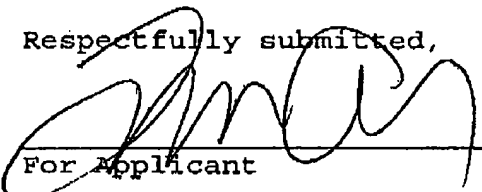
In view of the foregoing, reconsideration and allowance of claims 1-13 and 16-19 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

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If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



For Applicant

LAURENCE A. GREENBERG
REG. NO. 29,308

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Lerner and Greenberg, P.A.
Post Office Box 2480
Hollywood, FL 33022-2480
Tel: (954) 925-1100
Fax: (954) 925-1101